CLAIMS

1.   Method for communicating identification information from a terminal device to a network with a primitive having information elements with a

5   structure recognized by said terminal device and at least one other entity able to communicate over said network, characterized by

providing said primitive with an information element identifying a client of said terminal device, and by

providing said primitive identifying said client also with an information

10   element identifying a user of said client.

2.   The method of claim 1, characterized by said primitive comprising an update presence primitive for use in communicating presence information to said network.

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3.   The method of claim 1, characterized by said primitive comprising an unsubscribe presence primitive for communicating a request to said network to discontinue receipt of selected presence information.

20   4.   The method of claim 1, characterized by said primitive comprising a leave group primitive for communicating a request to discontinue participation in a group to said network.

5.   The method of claim 1, characterized by said primitive comprising a

25   create group primitive for communicating a request to create a group to said network.

6.   The method of claim 1, characterized by said primitive comprising a delete group primitive for communicating a request to delete a group to said

30   network.

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7. The method of claim 1, characterized by said primitive comprising a get group information primitive for communicating a request for group information to said network.

5 8. The method of claim 1, further characterized by

providing said primitive with an information element identifying a client of another terminal device, and by

providing said primitive with an information element identifying a user of said client of said another terminal device.

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9. The method of claim 8, characterized by said primitive comprising a get presence primitive for communicating a request for presence information to said network.

15 10. The method of claim 8, characterized by said primitive comprising a subscribe presence primitive for communicating a request to subscribe to presence information to said network.

11. The method of claim 8, characterized by said primitive comprising a

20 message primitive for communicating a message to said network.

12. The method of claim 8, characterized by said primitive comprising an invite user primitive for communicating a request to invite a user to said network.

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13. The method of claim 1, characterized by said at least one other entity comprising at least one server able to recognize said structure of said primitive, by said client first logging onto said server without providing said primitive with information elements identifying said client and said user, but

30 identifying a supported digest schema, by receiving back an authorization failure signal from said server with a nonce serving as a challenge for the

client, by the client calculating a digest concatenating the nonce, a user

password and a client identification using the supported digest schema, by the

client once again logging onto said server but this time with the calculated

digest, by the server recalculating the digest using the supported schema and

5   using the nonce and the client password and client identification extracted by

the server from the digest provided by the client, and by the server comparing

the re-calculated digest to the provided digest and accepting the login if they

match.

10   14.   The method of claim 1, further characterized by said at least one other

entity using said information element identifying a client of said terminal

device and said information element identifying a user of said client to

distinguish said user and said client.

15   15.   System for communicating identification information over a network,

characterized by

at least one terminal device for providing a primitive with an

information element identifying a client of said terminal device and also with

an information element identifying a user of said client, by

20   at least one other entity receiving said primitive provided over said

network, and by using said information element identifying a client of said

terminal device and said information element identifying a user of said client

to distinguish said user and said client.

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16.   The system of claim 15, characterized by said primitive comprising an

update presence primitive for use in communicating presence information to

said network.

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17.   The system of claim 15, characterized by said primitive comprising an unsubscribe presence primitive for communicating a request to said network to discontinue receipt of selected presence information.

5   18.   The system of claim 15, characterized by said primitive comprising a leave group primitive for communicating a request to discontinue participation in a group to said network.

19.   The system of claim 15, characterized by said primitive comprising a
10   create group primitive for communicating a request to create a group to said network.

20.   The system of claim 15, characterized by said primitive comprising a delete group primitive for communicating a request to delete a group to said
15   network.

21.   The system of claim 15, characterized by said primitive comprising a get group information primitive for communicating a request for group information to said network.
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22.   The system of claim 15, further characterized by said at least one terminal device providing said primitive with an information element identifying a client of another terminal device, and by providing said primitive with an information element identifying a user of said client of said another
25   terminal device.

23.   The system of claim 22, characterized by said primitive comprising a get presence primitive for communicating a request for presence information to said network.
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24. The system of claim 22, characterized by said primitive comprising a subscribe presence primitive for communicating a request to subscribe to presence information to said network.

5 25. The system of claim 22, characterized by said primitive comprising a message primitive for communicating a message to said network.

26. The system of claim 22, characterized by said primitive comprising an invite user primitive for communicating a request to invite a user to said
10 network.

27. The system of claim 15, characterized by said at least one other entity comprising at least one server able to recognize said structure of said primitive, by said client first logging onto said server without providing said
15 primitive with information elements identifying said client and said user, but identifying a supported digest schema, by receiving back an authorization failure signal from said server with a nonce serving as a challenge for the client, by the client calculating a digest concatenating the nonce, a user password and a client identification using the supported digest schema, by the
20 client once again logging onto said server but this time with the calculated digest, by the server recalculating the digest using the supported schema and using the nonce and the client password and client identification extracted by the server from the digest provided by the client, and by the server comparing the re-calculated digest to the provided digest and accepting the login if they
25 match.

28. Device for communicating identification information over a network with a primitive having information elements with a structure recognized by at least one other entity able to communicate over said network, characterized by
30   means for providing said primitive with an information element identifying a client of said device, and by

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means for providing said primitive identifying said client also with an information element identifying a user of said client.

29. The device of claim 28, characterized by said primitive comprising an update presence primitive for use in communicating presence information to said network.

30. The method of claim 28, characterized by said primitive comprising an unsubscribe presence primitive for communicating a request to said network to discontinue receipt of selected presence information.

31. The device of claim 28, characterized by said primitive comprising a leave group primitive for communicating a request to discontinue participation in a group to said network.

32. The device of claim 28, characterized by said primitive comprising a create group primitive for communicating a request to create a group to said network.

33. The device of claim 28, characterized by said primitive comprising a delete group primitive for communicating a request to delete a group to said network.

34. The device of claim 28, characterized by said primitive comprising a get group information primitive for communicating a request for group information to said network.

35. The device of claim 28, further characterized by
means for providing said primitive with an information element identifying a client of another device, and by

means for providing said primitive with an information element identifying a user of said client of said another device.

36. The device of claim 35, characterized by said primitive comprising a get presence primitive for communicating a request for presence information to said network.

37. The device of claim 35, characterized by said primitive comprising a subscribe presence primitive for communicating a request to subscribe to presence information to said network.

38. The device of claim 35, characterized by said primitive comprising a message primitive for communicating a message to said network.

39. The device of claim 35, characterized by said primitive comprising an invite user primitive for communicating a request to invite a user to said network.

40. The device of claim 28, characterized by said at least one other entity comprising at least one server, by said client first logging onto said server without providing said primitive with information elements identifying said client and said user, but identifying a supported digest schema, by receiving back an authorization failure signal from said server with a nonce serving as a challenge for the client, by the client calculating a digest concatenating the nonce, a user password and a client identification using the supported digest schema, by the client once again logging onto said server but this time with the calculated digest, by the server recalculating the digest using the supported schema and using the nonce and the client password and client identification extracted by the server from the digest provided by the client, and by the server comparing the re-calculated digest to the provided digest and accepting the login if they match.

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41.   The device of claim 28, further characterized by said at least one other entity using said information element identifying a client of said terminal device and said information element identifying a user of said client to

5   distinguish said user and said client.

42.   Server for communicating identification information over a network with a primitive having information elements with a structure recognized by clients able to communicate with said server over said network, characterized

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       means for communicating said primitive with an information element identifying a client, and by

       means for communicating said primitive identifying said client also with an information element identifying a user of said client.

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43.   The server of claim 42, characterized by said primitive comprising an update presence primitive for use in communicating presence information.

44.   The server of claim 42, characterized by said primitive comprising an

20   unsubscribe presence primitive for communicating a request to discontinue receipt of selected presence information.

45.   The server of claim 42, characterized by said primitive comprising a leave group primitive for communicating a request to discontinue participation

25   in a group.

46.   The server of claim 42, characterized by said primitive comprising a create group primitive for communicating a request to create a group.

30   47.   The server of claim 42, characterized by said primitive comprising a delete group primitive for communicating a request to delete a group.

48.   The server of claim 42, characterized by said primitive comprising a
get group information primitive for communicating a request for group
information.

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49.   The server of claim 42, further characterized by
        means for communicating said primitive with an information element
identifying another client, and by
        means for communicating with an information element identifying a
10   user of said other client.

50.   The server of claim 49, characterized by said primitive comprising a
get presence primitive for communicating a request for presence information.

15   51.   The server of claim 49, characterized by said primitive comprising a
subscribe presence primitive for communicating a request to subscribe to
presence information.

52.   The server of claim 49, characterized by said primitive comprising a
20   message primitive for communicating a message.

53.   The server of claim 49, characterized by said primitive comprising an
invite user primitive for communicating a request to invite a user.

25   54.   The server of claim 42, further characterized by
        means for first receiving a login message from said client without said
primitive with information elements identifying said client and said user, but
identifying a supported digest schema, by
        means for providing back an authorization failure signal to said client
30   with a nonce serving as a challenge for the client, by

means for receiving from the client a digest calculated by the client concatenating the nonce, a user password and a client identification using the supported digest schema, and by

means for recalculating the digest using the supported schema and

5   using the nonce and the client password and client identification extracted from the digest provided by the client, for comparing the re-calculated digest to the provided digest and for providing a result signal to said client accepting the login if they match.

10   55.   The server of claim 42, further characterized by said server having means for using said information element identifying a client of said terminal device and said information element identifying a user of said client to distinguish said user and said client.

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